

Title (en)

Method and device for measuring fuel injection timing

Title (de)

Verfahren und Vorrichtung zur Ermittlung des Kraftstoffeinspritzzeitpunkts

Title (fr)

Méthode et dispositif pour déterminer l'instant d'injection de carburant

Publication

**EP 0702140 A3 19981118 (EN)**

Application

**EP 95111681 A 19950725**

Priority

- JP 22010794 A 19940914
- JP 11481195 A 19950512

Abstract (en)

[origin: EP0702140A2] Method and device for measuring injection timing are designed to reduce the operation load and the amount of calculation required for determination of injection timing relative to the TDC. A reference position signal is generated at a predetermined crank angle within the range of 30 DEG CA to 90 DEG CA prior to the TDC. CA signals from a CA sensor are used as main increments and signals of another kind are used as fine increments to measure a period from generation of the reference position signal to generation of an injection signal by an injection valve lift sensor and another period from generation of the reference position signal to generation of a TDC signal. The injection timing relative to the TDC can simply be determined as a difference between the two periods. <IMAGE>

IPC 1-7

**F02D 41/34**

IPC 8 full level

**F02D 41/04** (2006.01); **F02D 41/34** (2006.01); **F02D 41/40** (2006.01); **F02D 45/00** (2006.01); **F02M 65/00** (2006.01); **G01M 15/04** (2006.01); **F02B 1/04** (2006.01)

CPC (source: EP US)

**F02D 41/345** (2013.01 - EP US); **F02B 1/04** (2013.01 - EP US); **Y02T 10/40** (2013.01 - EP US)

Citation (search report)

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- [XY] PATENT ABSTRACTS OF JAPAN vol. 008, no. 180 (M - 318) 18 August 1984 (1984-08-18)

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DE FR GB

DOCDB simple family (publication)

**EP 0702140 A2 19960320**; **EP 0702140 A3 19981118**; CN 1050409 C 20000315; CN 1129770 A 19960828; JP H08135542 A 19960528; US 5767396 A 19980616

DOCDB simple family (application)

**EP 95111681 A 19950725**; CN 95115598 A 19950908; JP 11481195 A 19950512; US 81402897 A 19970310